Amendments to the Specification:

Please replace the paragraph on page 10, lines 6 to 28 with the following amended paragraph:

"Polynucleotide" and "oligonucleotide" refer to a polymer of nucleoside monomers, including single, double and triple stranded deoxyribonucleotides, ribonucleotides, α-anomeric forms thereof, and the like. Usually the nucleoside monomers are linked by phosphodiester linkages, i.e., a phosphate diester or an analog thereof in which the [[phosphorous]] phosphorus atom is in the +5 oxidation state and one or more of the oxygen atoms is replaced with a non-oxygen moiety. Exemplary phosphate analogs include phosphorothioate, phosphorodithioate, phosphoroselenoate, phosphorodiselenoate, phosphoroanilinothioate, phosphoranilidate, phosphoramidate, boronophosphates, and the like, including associated counterions, e.g., H^+, NH_4^+, Na^+, and the like, if such counterions are present. "Polynucleotides" and "oligonucleotide" also include polymers of non-nucleotidic monomers, linked by phosphate ester or other linkages, which are capable of forming sequence-specific hybrids with a target nucleic acid, e.g., peptide nucleic acids (PNAs; e.g., see Knudsen, 1996). Polynucleotides typically range in size from a few monomeric units, e.g. 8-40, to hundreds or thousands of monomeric units. Whenever a polynucleotide is represented by a sequence of letters, such as "ATGCCTG," it will be understood that the nucleotides are in 5' to 3' order from left to right and that "A" denotes deoxyadenosine, "C" denotes deoxycytidine, "G" denotes deoxyguanosine, and "T" denotes thymidine, unless otherwise noted.

Please replace the paragraph on page 21, lines 9 to 27 with the following amended paragraph:

The mobility-reducing moiety can be attached to any part of the target

binding segment, provided that the target binding segment permits primer extension along the intended target template. Most conveniently, the mobility-reducing moiety is joined to the 5'-end of the target binding segment of the primer. When the mobility-reducing moiety is a polynucleotide, the moiety can be readily incorporated into the primer by standard synthetic methods. Similarly, a non-polynucleotide mobility-reducing moiety can be added by standard conjugation methods, or can be built up on a target binding segment by stepwise addition of polymer-chain subunits to the binding segment using standard solid-phase synthesis methods. In addition, although the invention may be described herein with respect to a single polymer chain attached at a single site to an associated target binding segment, the invention also contemplates target binding [[segment]] segments which are derivatized by more than one polymer chain element, where the elements collectively form the polymer chain. Methods of synthesizing selected-length polymer chains are described, for example, in Grossman *et al.* (1996).

Please replace the paragraph on page 30, lines 23 to 30 with the following amended paragraph:

The configuration of the separation medium can be any suitable configuration selected by the user. Typical configurations include vertical or horizontal slab gels, capillary electrophoresis tubes, and channels formed in a substrate such as a glass or silicon substrate. For example, a capillary tube or microchannel will typically define an electrophoretic path that [[having]] has an inner diameter of 200 μm or less, and more preferably 100 μm or less.

Please replace the paragraph on page 33, lines 13 to 31 with the following amended paragraph:

From the foregoing, it can be seen how the objects and features of the invention are met. The invention provides an improved dye-terminator polynucleotide sequencing method which avoids the problems resulting from comigration of dye-terminators and terminator breakdown products with short primer extension products. The invention allows sequencing of polynucleotide regions near the extension primer, which can be important for distinguishing polymorphic variants. Furthermore, the invention effectively expands the polynucleotide length range that [[are]] is sequenceable by dye-terminator based sequencing methods. The invention is thus particularly useful for sequencing single polynucleotide targets or heterozygous polynucleotide targets by direct labeling methods, in which sequence information is derived while the extension products are in the separation medium or are just exiting from the medium (e.g., real time monitoring during electrophoresis, or by scanning migration patterns within one or more lanes across a selected length range in the gel), without requiring reaction of the extension products with a secondary reagent for detection.

Please replace the paragraph on page 35, lines 23 to 32 with the following amended paragraph:

This study was repeated except that 25 μL of ethanol:sodium acetate mixture was used instead of 30 μL. This modification was effective to reduce the amplitudes of the residual terminator peaks in all cases. However, for primer extension products formed with primer 1, levels of the ~20 fastest migrating extension products were substantially reduced, so that the first 20 target bases were difficult or impossible to determine. In contrast, signals for extension products containing primer 2 were strong even for the 20 fastest migrating extension products, due to efficient ethanol precipitation of these species.